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ABSTRACT

When critical thinking skills are set adrift from course content, teachers soon fall prey to using critical thinking skills as techniques for getting students to succeed in class rather than surviving outside the classroom. However, the majority of writers in critical thinking skills agree that the skills are not subject-specific, are teachable, transfer to other disciplines, and cluster into paradigms for examining social phenomena. Students learn critical thinking skills by observing the professor manage the context of learning. A skillful teacher assesses students' experience bases and assists them in building structures they wish to change from those bases. Critical thinking skills in the communication classroom should help students assess the strengths they bring to the classroom; weigh the loci of issues in their environment; assist in matching their strategies for change with their repertoire of need for change; and make solutions obvious to the students and to others. To do this, teachers should plant students in contexts other than the classroom; abandon the text-driven course; discuss relevant social issues in class; help students discover their voices; use context-specific assessment tools; and focus students on communication patterns that connect and unify interaction contexts. Communication teachers can encourage critical thinking skills when they teach students: (1) how quickly image transfers meaning; (2) how to use computers to enrich detail and increase information yet reduce it to manageable style; and (3) how to see beauty in this postindustrial society where there is no beauty immediately apparent. (Contains 61 references.) (RS)

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Directing Teaching
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Directing Teaching Skills
in
Speech Communication
Toward
Critical Thinking Outcomes

by

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Running Head: Directing Teaching

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Should professors implant critical thinking skills in their students and import those skills to the classroom? Or should professors enhance critical thinking skills students already possess? What civic enrichments could we expect if professors validated students' skills instead of "training" them to think?

The Pearls Before Swine school of critical thinking skills patronizes students. Surely undergraduates will harm society and selves unless professors cast fragments of common sense into their troughs to munch on before they graduate.

Let's try another approach. The Student As Artist school of critical thinking skills. Society prizes artists because of their eyes. Artists see social structure, through their gift of perception create order of what they see, and through their work, provide a visual bridge through their creations for us to use to identify with their solutions.

Let's assume students are artists. They've survived at least eighteen years of postindustrialism. They are bright. No one survives for eighteen years without sketching a few blueprints--plans for creating order from disorder. If professors assess those blueprints, those survival plans, we won't need to import critical thinking skills to the classroom, but only scrub the grime off their own chapel ceilings.

Examined from the artist perspective, this essay describes critical thinking skills in terms of image, detail, and aesthetics.

Teachers chart their ways through their students' learning topography using feedback, goal setting, perceptual inventories, and composition exercises. Using these tools, we gain a hazy outline of our students' motivations to learn. The literature calls these, assessment tools.

Students graduate and chart their ways through the civitas. They use computation and composition skills congruent with individual populations' motives and needs. Reading the tapestries of human motives, students construct responses of competition or cooperation to survive their worlds. The literature calls these, critical thinking tools. The difference escapes me.

The same tools a teacher uses to prepare civic leaders serve students leaving the lecture hall and making civic choices. The essential goal of critical thinking skills is decision making in our arenas of needs. After all, people only learn what they need. Predicting our solutions to those needs is the business of cognitive model building--building solutions that might work: critical thinking. The first aim in education is to appreciate the weight and importance of ambiguity, and the second is like unto it: Selecting the better from the worse in the absence of certainty (Nelson, 1989).

Instead of arguing that critical thinking skills are some elusive cognitive mantra, I argue they are one in the same with good teaching skills. Students learn critical thinking skills when they interact with skillful teachers. Students learn their critical thinking skills by observing the professor

manage the context of learning. Students only move ahead once they see how to build on, and validate their support systems. The only way a teacher can persuade a student meaningfully off dead center is to reinforce his or her first teachers: the home. A skillful teacher assesses students' experience base and assists them in building structures they wish to change from that base. In this sense, each student becomes an artist in creating a work that transports her, and if we desire, others, from that experience base. I guide my analysis by three questions: What loci does the student see in her social environment? What path will she select to resolve the discomfort of the issue? How clearly can the rest of us see that resolving path? I argue critical thinking skills in speech communication are grounded in context, the civitas not in learning a set cognitive semaphores waved at students.

A. Importing Critical Thinking Skills To The Classroom:

The critical thinking skills assessment tools of the past seemed self-conscious to be seen with students. The majority of writers in critical thinking skills seemed to agree that the skills are not subject-specific, are teachable, transfer to other disciplines, and cluster into paradigms for examining social phenomena (Brell, 1990; Ennis, 1962). One professor told me "We submit to creeping vocationalism unless we give students only the most abstract of thought patterns." The hope is to give students general skills in to apply to specific civic issues as we can see in college catalogue dogma.

The University of Toledo (1987) tells us the goal of a liberal education is to learn how to: inquire, communicate, process data, appreciate history, document social consciousness, conduct scientific inquiry, and weigh values.

"The purpose of a liberal education is to widen the range of experiences open to students, to help them develop the disciplined, analytical and critical skills necessary for intellectual development throughout life, to prepare them to make better informed and humane decisions and to be able to communicate those decisions to others, and to cultivate their potential for creative expression." (p. 2)

The Cleveland's Ursuline college (Carfagna, 1994) in murmurs that a liberal arts Education teaches students: analysis and synthesis skills, communication skills, interaction skills, and the power to make value judgments. "...to make discriminations based upon the consideration of what the individual prizes as ethical, socially worthwhile, good, beautiful and true." (p. 45)

The distinctions between the skills a graduate needs working in the mayor's office and the skills prized in the lecture halls, are made vast and decisive. Lecture hall = good; mayor's office = bad. In separating student from context, the institution may end up straining out the gnat and swallowing the camel. Abstractions are only meaningful when supported with a large mix of experiences. We often forget that students come us us with little specific experience. We need to help them gain some tangible life experience before they can generate valid generalizations about their experiences.

These generalized goals seem to give birth to assessment instruments floating free from curricular moorings. The Kneupper-Williams assessment (Kneupper & Williams, 1984) focuses on hypothesis formation, research analysis, and outlining. The Watson-Glaser Critical Thinking Appraisal (Herber, 1970; Watson, Goodwin & Glaser, 1980) measures: inference, assumptions, deductions, interpretation, and argument strength. Ross Test of Higher Cognitive Processes (1976) assesses verbal analogies, deductions, word relationships, sentence sequencing, and interpreting answers to questions. Ennis-Weir Critical Thinking Essay Test (1985) the most rigorous assessment of discrete puzzle skills, describes how students getting to the point, see the reasons behind an argument, and identify assumptions. The Myers-Briggs Type Indicator (Greenfield, 1987) correlates personality types with information processing patterns.

When critical thinking skills are adrift from both the course content, and the students' social environment, other flotsam bobs by our bow. We soon fall prey to using critical thinking skills as techniques for getting students to succeed in our classes rather than surviving outside the classroom. If students can differentiate between deduction and induction, they'll take better notes. If they recognize a thesis, they'll write better essay exams. If they recognize weaknesses in assumptions, they'll not use The National Star as speech evidence. Dysfunctional models infect both instruction and instructor.

Professors may be tempted to use a wide range of limp critical thinking models to shove cognitive debris away from our student's frail barques. The Edward Hopper Model (wrote text for "Jesus Savior Pilot Me") where the professor becomes a harbor pilot threading cumbersome barges through sunken hazards in a harbor ("chart and compass come from thee, oh professor pilot me"). The "bank" model (students take out deposits of wisdom stored somewhere in the professor), or the "worry wart" (memorize this stuff because you never know what crisis will arise when you will have to use it--remember the embassy hostages in Iran), the "Broadway" (Oh Dr. Poot, I just LOVE listening to you. You make the hour go so fast!), or the "boot camp" (QUICK JONES, TELL ME THE DIFFERENCE BETWEEN sigma and CAPITAL "S" IN SAMPLING ERROR! SPEAK UP!) models in college education (Tompkins, 1990).

Marrou (1956) tells us by the use of outdated models, pre-Socratic education in Greece was soon divorced from the field. Sprague (1993) tells us that these generic instructional models may suffer the same fate today and be of little use. We see these dysfunctional models appearing in real life scenes. The models people use in life are the ones they learned in the classroom.

"The good patient" suffers in silence.

"I'll do it for you" urges the timid to equate mistakes with concupiscence.

"Color inside the lines" tells the listener that creativity is less preferable than neat boring people. How viable and productive are such models when innovative solutions are needed to assist the emergence of democracies in the Third World, as Baby Boomers peak in retired numbers in 2025, and as disabled citizens demand safe highways, workplace access, and access to recreation?

But, by contrast, what happens to teaching patterns when we lash content to context? What happens if teachers use a contextual, societal problem as a base for instruction, instead of the generic, "If train A leaves Chicago at 9 a.m. and train B leaves Denver at..." Could we not define the core critical thinking skills: look at a problem, design a model that duplicates the action of the problem, suggest adjustments in the model to correct the problem, and activate the corrections (Henderson, 1972)? Specifically in communication, the critical thinking skills may be: assessing communication phenomena and predicting communication outcomes in their own contexts (Hickson & Stacks (1993)).

B. Developing Critical Thinking Skills Already Present In The Classroom:

Our communication critical thinking skills should: Help students assess the strengths they bring to the classroom--those arising from their own social support system; Help students weigh loci of issues in their environment; Assist in matching their strategies for change with their repertoire of need for change; and helping students make their solutions obvious to to selves and obvious to others.

How Could This Be Done?

First, show them they are needed. What priceless skills of clear sight, unabashed empathy, endless energy, and splashes of enthusiasm are needed to revive us old coots who sigh and labor what we think is the eleventh hour in the vineyard? How refreshed parents who pay the tuition would feel if they could be assured professors thought of their sons and daughters as fresh troupes, not liabilities. Too often we hear, "My huge teaching load precludes publication." In our heart of hearts we know that there's nothing like an audience of college students to give our writing a relevant edge.

Second, in post-secondary teaching, cast students away from classrooms. Plant them in the contexts they will lead and give them opportunity to explain the complex scenes they see before them. The professor serves as image editor rather than lecturer.

Third, abandon the text-driven course. What sorry academic stewardship to curry peerless library collections on our campuses yet march students to the bookstore to purchase a received text. The quality of a professor can be assessed by the number of links he can make between the classroom and the real world...starting in his own world--the library (Boyer, 1990).

Fourth, the cry in the field is that employees need general problem-solvers who can also write up their solutions (Watkins, 1986). What relevant social issues are discussed, assigned, and solutions modeled in our courses?

Fifth, help students discover their voices. Bridge the term "voice" from the discipline of writing to communication and we have a new mission for assessment: empowering students for leadership in the civic arena. Voice can be defined as an ability to listen to one's own strengths, and the ability to embody reform in the civic arena.

Sixth, use context specific assessment tools. The use of the Test for Thematic Analysis, Self-definition, and Maturity of Adaptation, was designed specifically for the college audience (Winter et al., 1978). This tool give student a chance to evaluate "voice" in public argumentation. Korhonen & Torres (1987) have developed a assessment technique for describing students' information processing: kinesthetic (internal feelings and tactile senses), visual (students 'see' images of topics), and auditory (sounds of experiences). Here students recognize not only their own preferences but their voices complement in a civic audience: who is listening to them. appendix. David Kolb and Anthony Gregorc gave us systematic ways to begin understanding the student voice. David Kolb (Learning Styles, 1991), a Case Western Reserve organizational behavior professor developed four major learning styles rotating on the axes of watching/doing; sensing/thinking.

Anthony Gregorc's concept of mind styles (Butler, 1988) grew out of his research on cognition at the University of Connecticut. He argues that styles are symptoms--characteristics that reveal themselves to be surface indicators of two deep levels of the human mind: whole systems of thought, and peculiar qualities. Individuals use these styles to establish links with reality. His four styles are: (1) Concrete Sequential: Learner is structured, practical, predictable, and through. (2) Abstract Sequential: Learner is logical, analytical, conceptual, and studious. (3) Abstract Random: Learner is sensitive, sociable, imaginative, and expressive. (4) Concrete Random: Learner is intuitive, original, investigative, a problem-solver.

Other variables include: Field-dependence-independence; thinking judgment/feeling judgment; sharpening-leveling: (how a student merges new information" by over-generalizing or by over-discriminating); risk-taking; cautiousness; time of day preference; preference for light, sound, and temperature; need for mobility: learner's need to change posture and location.

Tom Angelo (1991). suggests assessing the quality of audience response: declarative (need for facts); procedural (need to know how to do something); conditional (need to know the consequences); and reflective (need to know the right or wrong of actions). The Cross Angelo (1988) handbook describes scores of ways all four goals may be met in the classroom.

Seventh, there is no communication without context. We can focus our students on analysis of communication patterns that connect and unify interaction contexts (Schiller, 1994). Even the most routine forms of human communication can be understood only in terms of the contexts from which they arise. As students wrestle with world issues, localities such as Bosnia and Chiapas state nudge us with the force of their contexts.

Communication education research needs to be exceedingly context specific. Sprague (1993) assures us that theory and pedagogy tend to inform each other. Thus to teach critical thinking skills we need to target specific communication loci and urge students to generate solutions to the issues emerging from these scenes.

C: Focusing the Students' Critical Thinking Skills:

Critical thinking skills can focus on the student as art: The ability to see order in disorder and to express that order in means commonly recognized by others. We encourage critical thinking skills when we teach communication students: (1) how quickly image transfers meaning; (2) how detail is magnified; (3) a postindustrial aesthetic.

1. Image Skills

We need to teach students how to write speech, not words. We need to write in memorable format. Compose as words strike the human ear and eye.

Adam Yarmolinsky Regents Professor of public policy at the University of Maryland in Baltimore argues that liberal education must provide a rich diet of specific facts and competing ideas for the memory to feed on.

"A full storehouse of memory is a prerequisite for the formation of taste, for the development of style, for the epiphanies of scientific discovery....An educated taste requires direct and repeated experience, whether of music, art, or literature. These experiences need to be remembered in detail, so that the student can make specific comparisons and contrasts. What is not remembered or remembered only vaguely, cannot be used to formulate a standard of taste. Accurate observation is the initial element in the process." (p. 9).

Human communication is performed, embodied, and usually oral. Ong (1982) observes that the "word" never exists in a simply verbal context, as written word does. Spoken words are always modifications of a total, existential situation which always engages the body. Thus communication critical thinking skills show people how to do things. Communication critical thinking skills are techniques to crack abstractions and render them into movement studies. As Strauss' tone poems are to Philip Glass's works, so image force to speech is a prime skills for modeling movement. Robert McKim (1980) has developed a set of visual strategies for problem solving to free students from reliance on numbers. The strategies are: define, persist, cycle, manipulate, and transform.

When we forget communication as image, students forget their ability to act. If students are blind to image, they are blind to obligation. Our students may be blind to tasks of social involvement--they may be media toxic. It may come as a shock to many of us older than baby boomers that children are media toxic when they come to our classroom. This toxicity affects their ability to perform leadership roles in the civitas.

In spite of seeing a whole globe on CNN students may not know how to see what needs doing. Perry (1981), found that students enter college with a simplistic view of knowledge that limits their understanding of complex issues. They seem to be in a state of video toxicity (Meyrowitz, 1984; Condry, 1993). They do not know conversational turns, cannot recognize perlocutionary force, lack voice color, cannot aim the voice, seem unable to give feedback.

Bertman (1988) professor of classical languages, Hillsdale College, describes this media toxicity using Plato's cave metaphor. The cave dwellers live their whole lives in the cave unable to turn their heads. They perpetually face the back wall of the cave. Behind them blazes a fire casting light on the back wall. A mysterious puppeteer creates shadow images on the wall. The cave dwellers think the shadows are reality.

"Our problem," says Bertman, "Is not darkness, but too much light. We may suffer from information overload. Forced to handle too much data, the individual may practice psychological absenteeism: avoiding responsibility and decisions, chemically insulating his psyche from the reality, and seeking various forms of sensual gratification as substitutes for understanding. Just as the pupil of the eye contracts in response to excessive light, so the receptors of the mind contract in response to excessive information." (p. 748)

The most serious side-effect of this toxicity is civic paralysis. Youth seem unable to put facts together to build a model of how to solve a problem (Berkowitz (1990)). The artes liberales tradition argues, the purpose of education is to train citizens to be leaders in society by teaching them the true virtues. Virtues are best seen in ballot casting.

Kimball (1990) connects Athens to Washington. "In the U.S. the Res Publica tradition of liberal education centers in the "Republican" vision of politics. This vision fears the erosion of citizens' freedom by corrupt governments and emphasizes the virtuous responsibility that each citizen owes to the corporate society and to the state, the res publica. The goal of liberal education is to train the virtuous citizen who will participate in and guide the polity. This is done in the public arena--where communication occurs without script. Without script audiences' ears must become eyes.

Assessment of these skills in the classroom begin by learning visual vocabulary and writing styles (declarative learning). Next, students examine negative and positive models of visual discourse (procedural learning), modeling solutions on potential audiences (conditional learning), and weighing the goodness of that solution relative to community life (reflective learning). Flower (1981) presents a highly contained assessment tool for all four modes of learning. This test treats writing as a problem to solve with the following strategies: define the key conflict issue; place the problem in a larger context; making the problem more operational; exploring the parts of the problem; generating alternative solutions; arriving at a conclusion.

2. Enrichment of Detail--Computer Skills

Don't condense facts, increase them. Jan Davidsz de Heem's (1683-1716) works retain their financial worth throughout the centuries while the works of Rubens and other Dutch painters fluxuate in market value. Reason: his devotion to detail. Students graduating to a workplace built adjacent to the Information Highway will need specific critical thinking skills to gather, store, assess, retrieve, and reproduce electronic data. To recognize the unique role the computer plays in this workplace students will need to know the advantages of increasing, instead of decreasing, details.

Sprague (1993) urges teachers to recognize that human communication is a complex, ongoing process best learned by an extremely complex blend of observation, apprenticeship, role-playing, and reflection. Critical thinking skills for communication, thus, is the technique of increasing the amount of data. Robert Reich, shows us practical application of such involvement--the training of new U.S. secretary of labor tells us of the future job market. A need for problem-solvers supplants the old line of mid-level supervisor, low level supervisor, and drone laborers. "The jobs of the future won't fit neatly into our current categories of "manager/managed" or high-tech/low tech." Examples abound. There's a new kind of delivery truck driver equipped with a computer and modem in her cab, so she can time deliveries to exactly when customers need them and then custom-assemble the complex machinery she's delivering. She shares little more than a job title with the trucker of 10 years ago. She's a high-skilled service technician, and she's making good money." (Reich, p. A16.)

The computer enables us to compile endless discrete description of variables. Businesses using computers record detailed "profiles" of each client. Some colleges have elaborate "templates" for each undergraduate containing study habits, professional goals, expressed skills, parents.

If managers are to handle this type of scene they must feel comfortable increasing, instead of decreasing the amount known about each case. To manage these data, managers must devise search strategies to reduce the information to commonalities and categories to express similarities among diverse interests.

Critical thinking skills could show students how to increase information yet reduce it to manageable style. Through field reports where students interview a large number of cases: testimonies, witnesses of the same event; members of a panel of subjects. Returning to the classroom students devise elaborate computer search strategies and combine the categories to obtain new interpretations on the field research.

Professors can prepare students for new positions such as: a focuser...someone who helps the client focus their information needs. Determining what the client has in mind is a major hurdle for businesses. Most professionals have learned that the more they bring their resources closer to the needs of the customer, the higher is the level of cooperation and motivation. For example, many colleges now teach courses based on "what do you want to know about astronomy". By focusing in this feature, skilled professors can build relevant matter brick by brick to a student's final field of interest. In this, the professor learns quickly the visible links relevant for each student. Teaching activities for this type of skill would be to teach students how to conduct focus groups on each area of interest and to catalog the "analogies" that are relevant for a wide range of clients. Here the ethnographic studies so numerous today would be useful as students not only describe a scene but learn the "organizing metaphor", in Burkean terms "The representative anecdote" for how an organization justifies its activities (Benson, 1981) and enables us to look deeply behind the scenes of communication phenomena (Fitch, 1994).

Students should build their own libraries during their university careers. Internet communication skills are needed. Keeping track of all the variables and libraries of information that are being stored at the pace of thousands of new subscribers per year. They are charged with the mission of seeking out information they find useful. These data become specimens that model order (clip art for the brain?) in each student's career area. Professors should assist students grooming these data. Thus a student can leave college with a collection of data viable to his field of career.

We need to teach students how to document themselves. To answer the question: Do you have any experience: If they have documentation of their own thoughts in their portfolio, they DO have experience. We must also do a better job of documenting our students... not just with attendance and grades, but by actual evidence of their thoughts.

Derek Bok (1986) tells us the chief need on campuses will be TIME: (Bok, 1986) So that Information will be the coin of the realm and time will be its metal. We can see the dimensions for his priorities when he says time is needed so that scholarship does not lack depth, so that we have time for students, and so that we have time to learn how students learn.

Indeed the press of time causes the mid to blur when we see how computer inventions of the past were mishandled (Who Built; Turner 1983), how cable and telephone marriages are proposed and dissolved (Colino, 1986), how professors design computer class simulations congruent with the eroding power of time on relevant data (Golden, 1983; Fritz & Peters, 1991). J. D. Bolter (1984) argues in Turing's Man that the computer will not take away intelligence, but that computers give writers some flexible control over their writing...very much like a potter uses clay to shape an idea.

The main advantage for increasing data is that it leads to greater accountability. Hawes (1994). reminds us of how increase of data will influence our ideas of evidence.

"Today I am more concerned about accessibility and accountability than I am about admissibility. Valid knowledges, it seems to me, have less to do with exclusivist, technical admissibility criteria than it does with inclusionist, accessible knowledge and experience. How and in what ways am I accountable for the evidence I gather?"

Foucault's 1988 work on multiplying knowledge and experience and Bakhtin 1986 work on multiple perspectives underscores Hawes' caution against narrowing our perspective. He urges us to examine conversations enabled by context: therapy sessions, family communications, and conflict resolution.

Assessment for these skills may lie in the creation of field notes. Students learn the half-column observation technique both from ethnographic studies and from anthropological studies (declarative learning). They then leave the classroom to learn the techniques of capturing process in the field (procedural learning). Students then compare sources drawn from the same scene using a triangulation of methods (conditional learning). Finally in conversations from their target audiences, they gain a sense of goodness as it faithfully reflects the quality of choices of the scene (reflective learning).

3. New Aesthetics Skills:

Art has always been a solace when life is hard (Steadman, 1994). Rubens' "Landscape with a cart fording a stream" (1617-1620) documents individual efforts and hardship. Rubens' genre paintings, were a way of making the mundane beautiful and believable.

In postindustrial society we need persons who can see beauty where there is none immediately apparent. Sanders, J. A., Wiseman, R. L., Gass, R. H. (1994) and Cacioppo & Petty, (1982), argue that critical thinking is also related to the need for cognition: an individual's tendency to engage in cognitive elaboration, to thinking about and reflect on ideas, issues, topics, and messages, in places where life is hard, to beautify and give valid meaning to that life. Instead of dismissing the variants in our culture, we must come to recognize what others regardless of their shape, agility, or age can contribute to us as we ford the stream.

We must see beauty in elders, in those assisted by wheelchair, in those who see by different standards than the "norm." These people are rich with the disorder--Dissoi logoi--that attracts critical thinking skills (Kennedy, 1963). We use rhetoric in moral and political problems that men argue about BEFORE acting. We use rhetoric when we have no system to guide us. We must also examine how people learn: from something they CAN do, to something NEW. This is the natural way the brain functions and GROWS. Have we taught and documented the way people grow? (Smilkstein, 1993).

Communication would catalogue the patterns of power, particularly as the Third World blooms into power with the signing of Nafta. Or catalogue cultural patterns and how students can function in this setting (Sprague, 1993). As Ellen Wartella (1994) tells us:

"We lack a clear vision of who we are and where we are going; We have done little to enhance our presence among our academic peers (we don't pay attention to the important issues of communication on the public agenda; there is so much attention to communication problems in the public eye, yet we ignore them; "I would hope that we could empower the disempowered with knowledge and understanding." (p. 59).

The Joint International Research Group of The Institute for Bioethics and The Hastings Center, (What do we owe, 1994) preparing for a September 1994 conference "Care for the Elderly: Goals and Priorities) selected six key recommendations. Among them: "A public dialogue on the significance of old age in the common life of society should be advanced through educational programs, the media, and joint government-private efforts. These efforts should encompass future possibilities for the elderly in the realms of work and leisure." (p. S2)

Robert Denham (1990) asks, 'What should we do when the cry in the street becomes louder than the cry in the book?' (p. 39). One answer is to look for fresh help--our students' minds. When the artist outshines his canvas we lose his eyes. When a professor becomes a star, he's blind to where his students lead.

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